

Application No.: 10/685,261  
Amendment Dated: October 20, 2004  
Reply to Office Action of: July 22, 2004

END920000181US2

**Remarks/Arguments:**

**Amendments**

The specification has been amended to indicate the current status of the parent application. Claims 25-30 and 33-35, drawn to an unelected invention, have been cancelled without prejudice to applicants' right to pursue the subject matter of these claims in a separate divisional application. Support for the amendment to claim 17 is found on page 7, lines 10-15. Claim 20 has been amended to change dependency. Support for new claim 36 is found on page 10, lines 10-16. Support for new claim 37 is found in original claims 17 and 20 and on page 10, lines 10-16. Support for new claim 38 is found in original claim 18. Support for new claim 39 is found in original claim 20. It is submitted that no new matter is introduced by these amendments and new claims.

**Restriction Requirement**

Applicants affirm the election of the claims of Group I, claims 17-24. The remaining claims have been cancelled as drawn to an unelected invention without prejudice to applicants' right to pursue the subject matter of these claims in a separate divisional application.

**First Rejection under 35 USC 102(e)**

*Claims 17-24*

Claims 17-24 were rejected under 35 USC 102(e) as anticipated by Berger, U.S. Patent 6,528,145 ("Berger"). As noted by the Office, Berger and the instant application are commonly assigned.

Claim 17 has been amended to recite "a layer consisting essentially of silicon-oxide." In Figure 11, referred to by the Office, index number 98 is a "ceramic-filled polymeric layer." Berger, column 13, line 58. A ceramic-filled polymeric layer contains a mixture of a polymeric and a ceramic material. Berger, column 3, lines

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45-47. Therefore, the ceramic-filled polymeric layer does not consist essentially of silicon oxide.

Anticipation requires that each and every limitation of the claim be disclosed, either expressly or under principles of inherency, in a single prior art reference. *In re Robertson*, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999); See, also MPEP § 2131. Absence from the reference of any claimed limitation negates anticipation. *Rowe v. Dror*, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997). Berger does not disclose a layer that consists essentially of silicon oxide. Therefore, the rejection of claims 17-24 as anticipated by Berger should be withdrawn.

#### *New Claims 36-39*

New claims 36 and 37 each recite that the "added layer additionally comprises solid particles of a thermally conductive and electrically insulating material." Claims 38 and 39 are dependent on claim 37. This limitation is not disclosed by Berger. Berger discloses that there should be no ceramic filler in the surface layer. Berger, column 9, lines 33-35, and column 14, lines 3-5. Therefore, claims 36-39 are not anticipated by Berger.

#### **Second Rejection under 35 USC 102(e)**

Claims 17-24 were rejected under 35 USC 102(e) as anticipated by Vargo, U.S. Patent 6,232,386 ("Vargo"). This rejection is respectfully traversed.

Vargo discloses polymer composites having an oxyhalo surface and methods for making same. Vargo, Title. The Office asserts that Fig.3 shows a polymer layer 46 coated with a metal oxide layer 47, which is in turn bonded to another polymeric layer 48. The Office further asserts that the metal oxide can be silicon oxide. Office action of 7/22/04, page 4, lines 10-16. In support of this assertion, the Office points to the description of "metal oxide" given in columns 13 and 14 of Vargo.

In the description of Figure 3, Vargo discloses:

For example, in FIG. 3, halopolymer 42 is surface treated so that oxygen atoms or oxygen-containing radicals (designated X) 43 are bonded to surface 44, thus producing oxyhalopolymer 45. Oxyhalopolymer 45 is then infused with an organic or inorganic material to produce oxyhalopolymer composite 46. During the infusion process, layer 47 (from about 1 nm to about 1 mm thick) of pure conducting or semiconducting material (e.g., metal, metal oxide, metal nitride, metal carbide, metal boride, polyacetylenes, polythiophene, and polypyrrole) is disposed on surface 44. Layer 47 of oxyhalopolymer composite 46 is then reacted with material (designated Y) 48 (e.g., conducting or semiconducting materials, other polymers, biological materials, and phosphorescent and fluorescent molecules commonly used in sensors and electroluminescent or liquid crystal based displays) so that material (designated Y) 48 is bonded to layer 47 of oxyhalopolymer composite 46.

Vargo, column 36, lines 1-17 (emphasis added).

Although layer 47 can be a "metal oxide," Vargo also discloses that it is a "pure conducting or semiconducting material." Silicon oxide is a well-known insulator. See, for example, specification page 10, lines 14-16. Therefore, layer 47 cannot be silicon oxide because silicon oxide is not a conducting or semiconducting material.

Anticipation requires that each and every limitation of the claim be disclosed, either expressly or under principles of inherency, in a single prior art reference. Absence from the reference of any claimed limitation negates anticipation. As described above, Vargo does not disclose a composite structure that contains silicon oxide. Therefore, the rejection of claims 17-24 as anticipated by Vargo should be withdrawn.

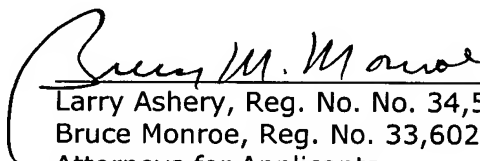
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## Conclusion

It is respectfully submitted that the claims are in condition for immediate allowance and a notice to this effect is earnestly solicited. The Examiner is invited to phone applicants' attorney if it is believed that a telephonic or personal interview would expedite prosecution of the application.

Respectfully submitted,

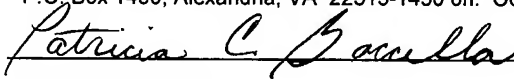
  
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